

REMARKS

Receipt of the Office Action mailed May 1, 2003 is acknowledged. Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the remarks that follow.

Claim 64 is currently being amended. This amendment is not a narrowing amendment related to patentability; rather, it is intended to be, and should be considered as, a broadening amendment. Support for this amendment can be found in paragraph [0023] of the applicants' specification.

Claims 81-87 are being added. Support for this amendment can be found in paragraphs [0010] to [0015] of the applicants' specification.

After amending the claims as set forth above, claims 39-87 are pending in this application. Claims 39-63 and 72-80 are withdrawn. The sole rejection of record is that claims 64-71 stand rejected under 35 USC § 103(a) as allegedly being unpatentable over De Ponti et al., GB 2,245,831 ("De Ponti").

The Examiner refers to pages 2-3 of De Ponti as disclosing a formulation for treating burns or wounds comprising a powder of water-insoluble and water-swellaable polysaccharide microspheres loaded with a heparin-binding growth factor. The Examiner further refers to pages 6-7 as disclosing a process for preparing the powder which comprises: (i) soaking water-insoluble and water-swellaable polysaccharide microspheres in an aqueous solution of heparin-binding growth factor; and (ii) lyophilizing the dispersion of the microspheres in the aqueous growth factor solution.

The Examiner acknowledges that De Ponti does not disclose a method of making a powdered pharmaceutical composition wherein primary loaded hydrogel particles are contacted with an aqueous composition containing the pharmacologically active agent for a period sufficient to allow further agent to associate with the hydrogel particles and be incorporated

therewith as set forth in claim 64. The Examiner, however, takes the position that, absent unexpected results, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method disclosed in De Ponti by contacting the primary loaded hydrogel particles with an aqueous composition to allow further agent to associate with the hydrogel. The Examiner relies on the expectation of obtaining the desired swelling and amount of growth factor absorbed onto and / or into the microsphere as taught by De Ponti for the motivation to modify.

Applicants respectfully submit that De Ponti does not disclose or teach all of the limitations of the presently claimed invention and that the modification suggested by the Examiner would not have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Applicants further submit that De Ponti does not provide any motivation to modify the method disclosed in the reference, nor does it convey a reasonable expectation of success in making the claimed invention.

As acknowledged by the Examiner, De Ponti does not disclose a method of making a powdered pharmaceutical composition wherein primary loaded hydrogel particles are contacted with an aqueous composition containing the pharmacologically active agent for a period sufficient to allow the further agent to associate with the hydrogel particles and to be incorporated therewith. In addition, De Ponti does not disclose the steps of separating the hydrogel particles from the aqueous composition in at least a partial drying step to obtain primary loaded hydrogel particles having the active agent incorporated therewith or to obtain secondary loaded hydrogel particles having the active agent incorporated therewith. De Ponti also does not disclose providing a mixture of preformed particles. Further, De Ponti does not disclose contacting the hydrogel particles with the aqueous composition while in a dry state according to claim 66 nor does it disclose contacting them while in a wet, prehydrated state according to claim 67. As such, De Ponti does not teach all of the limitations of the presently claimed invention.

Additionally, De Ponti does not provide a motivation to modify the disclosed method that would render the claimed invention obvious under 35 USC § 103(a). De Ponti discloses varying

the soaking time to achieve the desired amount of absorption onto and / or into the microspheres. See page 8. It further discloses several factors that affect the amount of swelling, including the chemical composition of the microspheres, their unswollen diameter, the nature of their cross-linking agent and its relative content with reference to the microspheres, temperature, pH, ionic strength, nature of the solution and presence of surface modifiers. See page 8. De Ponti does not disclose or suggest that separating the hydrogel particles from the aqueous composition in at least a partial drying step and contacting the loaded hydrogel particles at least one more time with an aqueous composition containing the pharmacologically active agent for a period sufficient to allow further agent to associate with the hydrogel particles and be incorporated therewith would affect the amount of swelling or the amount of growth factor absorbed onto and / or into the microsphere. As a result, there is nothing in De Ponti that would have suggested to a person of ordinary skill in the art to arrive at the instantly claimed method.

In addition, the inventors of the present invention have discovered that, when the hydrogel particles are separated from the aqueous composition in at least a partial drying step to obtain primary loaded hydrogel particles and the primary loaded hydrogel particles are contacted with an aqueous composition containing the pharmacologically active agent for a period sufficient to allow further agent to associate with the hydrogel particles and be incorporated therewith, the amount of agent loaded can be more than double the original amount of agent loaded on the hydrogel particles. This is illustrated in Example 5, and the results of two exemplary dual-loading processes are reported in Tables 1 and 2. Further, the claimed method requires additional time and results in additional expense, which would have discouraged a person of ordinary skill in the art from arriving at the instantly claimed method.

Claims 81-87 are also not obvious in light of De Ponti. De Ponti does not teach all of the limitations of the presently claimed invention. Moreover, for the reasons discussed above, applicants submit that De Ponti does not provide an objective motivation to modify the method disclosed in the reference.

Applicants believe that the present application is in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

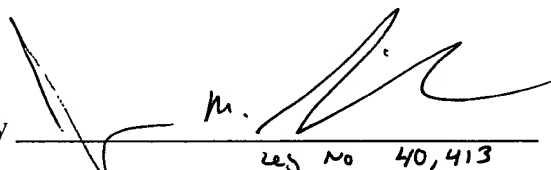
The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. § 1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

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FOLEY & LARDNER
Customer Number: 22428
Telephone: (202) 672-5483
Facsimile: (202) 672-5399

Respectfully submitted,

By  us No 40,413

for Richard C. Peet
Registration No. 35,792
Michelle Walters
Registration No. 51,113
Attorneys for Applicant